

Patent claims:

1. A rack-and-pinion steering system for motor vehicles, having the following features:

- the rack is mounted in a steering mechanism housing such that it is longitudinally displaceable,
- the rack is connected at its two ends to in each case one steering tie rod in an articulated manner,
- the pinion and rack are kept in constant engagement by a pressure piece,
- sealing bellows are fastened on one side to the housing and on the other side to the steering rods
- at least one pressure compensation element is integrated in the steering mechanism housing, characterized in that the pressure compensation element (14) is integrated in the pressure piece (13).

2. The rack-and-pinion steering system for motor vehicles as claimed in claim 1, characterized in that the adjusting screw (18) of the pressure piece (13) is equipped with a pressure compensation element (14).

3. The rack-and-pinion steering system for motor vehicles as claimed in either of claims 1 and 2, characterized in that the pressure compensation element (14) is composed of a porous sintered material.

4. The rack-and-pinion steering system for motor vehicles as claimed in claim 3, characterized in that the adjusting screw (18) of the pressure piece (13) is composed of porous sintered material.

5. The rack-and-pinion steering system for motor vehicles as claimed in claim 3, characterized in that the pressure

compensation element (14) is configured as a porous sintered plastic insert.

6. The rack-and-pinion steering system for motor vehicles as claimed in claim 5, characterized in that the housing or the adjusting screw (18) of the pressure piece (13) has a cutout (15) which is adapted to the dimensions of the sintered plastic insert and serves to accommodate the sintered plastic insert.

7. The rack-and-pinion steering system for motor vehicles as claimed in either of claims 5 or 6, characterized in that the sintered plastic insert is configured as a pressed pellet and can be pressed into the cutout (15).

8. The rack-and-pinion steering system for motor vehicles as claimed in claim 7, characterized in that the pressed pellet is formed from ground granules which have been joined to one another by a sintering process.

9. The rack-and-pinion steering system for motor vehicles as claimed in claim 8, characterized in that the air permeability values and/or the liquid retention capacity can be influenced by the size and/or the shape of the granules.

10. The rack-and-pinion steering system for motor vehicles as claimed in one of claims 1 to 3, characterized in that the pressure compensation element (14) is configured as a disk or diaphragm.